REMARKS

This invention discloses the armadillo domain of human β-catenin polypeptide and the key amino acid positions in the armadillo domain of human β-catenin polypeptide that affect the interaction of β-catenin and a transcription factor or tumor suppressor protein. Further, the invention teaches how to inhibit the interaction of human β-catenin and a transcription factor or tumor suppressor protein by mutation.

The new claims are directed to the mutants of the armadillo domain of human β-catenin polypeptide and the mutated peptides of arms 3-8 of human β-catenin polypeptide. The mutants of the armadillo domain of human β-catenin polypeptide are fully disclosed by Example 4 and Figure 6 in the specification, which describe the use of the "large" peptide consisting of Leu 218 to Leu 781 (i.e. the C-terminus, Figure 6). The polypeptide sequence of human beta-catenin was known to the person skilled in the art prior to the priority date of this application, as published in Nollet F, Berx G, Molemans F, van Roy F, Genomic organization of the human beta-catenin gene (CTNNB1), Genomics 1996 Mar 15;32(3):413-24. The new claims recite the specific positions of the mutations based on the known peptide sequence of human β-catenin. The mutated peptides of arms 3-8 are also fully disclosed by Example 4 and Figure 5 in the specification, which describe the arm peptides of repeats 3 to 8 for the mutagenesis (Figure 5). The kits used for the mutagenesis have been commercially available long before the priority data of this application.

Not only mutation by alanine substitutions but also mutation by aliphatic amino acids substitution at specific positions are enabled by this invention. It is well established in the art that amino acids can be grouped in classes that exhibit similar, if not identical,

properties. A copy of page 7 of the textbook "Proteins" (Thomas E. Creighton, 2nd ed. 1984) is enclosed with this preliminary amendment, which clearly shows the similar properties of this group of amino acids. A person skilled would, by reading the teaching with respect to alanine, readily exchange this amino acid by aliphatic amino acids.

In summary, both the two peptides classes and the mutations are adequately described in specification and therefore fully enabled.

The Commissioner is authorized to charge any required fees, including any extension and/or excess claim fees, any additional fees, or credit any overpayment, to Goodwin Procter LLP Deposit Account No. 06-0923.

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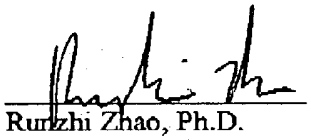
Respectfully submitted,



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